

REMARKS

The pending office action rejects independent claim 1 as obvious under §103 in view of Hagedoorn (US2003/0045283) and Svean (US6754359). Applicants respectfully disagree and offer the following remarks in response.

Hagedoorn describes a Bluetooth hearing aid that communicates with a wireless telephone via a short-range wireless interface. By using a Bluetooth transceiver, Hagedoorn physically separates the hearing aid from the wireless telephone to prevent feedback interference that typically occurs when a wireless telephone is in close proximity to a sound reproduction device, such as a hearing aid. Svean describes an ear plug that includes a sealing section to block environmental noise from the inner ear. Because the sealing section distorts the user's voice, Svean includes filtering circuits that transform the user's voice such that the vocal sounds actually heard by the user sound more like the vocal sounds heard when the ear plug is not inserted into the user's ear. This is intended to make the user feel more comfortable while wearing the ear plug (see Summary).

Independent claim 1 claims a wireless hearing aid capable of communicating with a mobile station. The claimed wireless hearing aid includes interference suppression circuitry, a short-range wireless transceiver, a microphone, and a speaker. The interference suppression circuitry suppresses interference from an audio signal detected at the hearing aid microphone.

In rejecting claim 1, the Examiner asserts that it would be obvious to combine the filtering electronics of Svean's ear plug with Hagedoorn's Bluetooth hearing aid. The proffered motivation for this combination is that such a combination would "minimize interference and noises for a more desirable system."

Contrary to the Examiner's assertions, there is no motivation to combine Svean with Hagedoorn. First, the ear plug described in Svean has an entirely different purpose than the hearing aid described in Hagedoorn. Hagedoorn describes a hearing aid device that improves

or enhances a user's hearing. Contrastingly, Svean describes a hearing protection device (e.g., an ear plug) specifically designed to block sound to protect the user's ear from damaging environmental noise. Because Hagedoorn's hearing aid has an entirely different purpose than that of Svean's ear plug, there is no motivation to combine Svean with Hagedoorn.

Second, the Examiner's proffered motivation is conclusory because the stated motivation is not based on any factual evidence of record. Svean only describes the filtering circuits in the context of the disclosed hearing protection device. As such, Svean does not teach or suggest the desirability of including the filtering circuits with a hearing aid. Further, nothing in Hagedoorn teaches or suggests utilizing any type of interference or noise suppression circuit in any part of the disclosed short-range wireless system. In fact, conventional Bluetooth devices in communication with a cellular telephone typically use interference suppression circuits already provided by the cellular telephone. Therefore, it is unclear why one skilled in the art would view the Svean filtering circuits as a useful or necessary improvement to Hagedoorn's Bluetooth hearing aid.

Applicant further notes that the instant application is the only document of record that details the desirability of including interference suppression circuits with a wireless hearing aid. Therefore, it appears that the Examiner's proffered motivation relies solely on impermissible hindsight.

For at least these reasons, the Examiner's §103 rejection of independent claim 1 is fatally flawed and must be withdrawn.

In addition to the above remarks, Applicant adds new claims 62 and 63 in the attached "Amendments to the Claims." Claim 62 depends from dependent claim 2 and claims that the noise suppression circuitry suppresses ambient noise signals from the input audio signals. Claim 63 depends from independent claim 1 and claims that the short-range wireless transceiver transmits the interference-suppressed signal output by the interference-suppression

circuitry to a cellular telephone for transmission to a remote cellular telephone. No new matter is added.

Nothing in either Svean or Hagedoorn, alone or in combination, teach or suggest using noise suppression circuitry to suppress ambient noise as required by claim 62. As conceded by the Examiner, Hagedoorn's hearing aid does not include any type of interference suppression. Further, Svean explicitly teaches sealing off the inner ear to block ambient noise (see at least col. 1, ll. 65 – 67). Nothing in Svean teaches or suggests using an electronic circuit to suppress ambient noise. In fact, because Svean's ear plug seals off the inner ear, the input audio signals detected by the microphone in Svean do not include ambient noise. As such, Svean has no need to include any type of electronic circuit that implements ambient noise suppression. Therefore, claim 62 adds new and non-obvious limitations to the claimed invention.

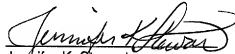
Further, nothing in Svean or Hagedoorn teach or suggest transmitting an interference-suppressed signal from a hearing aid to a cellular telephone for transmission to a remote cellular telephone, as required by claim 63. As such, claim 63 adds new and non-obvious limitations to the claimed invention.

In light of the above remarks and the enclosed amendments, Applicants submit that independent claim 1 and dependent claims 2 – 10, 62, and 63 are new and non-obvious in view of the cited art. As such, Applicants respectfully request reconsideration and allowance of the claims. Should any issues remain unresolved, Applicants request that the Examiner call the

undersigned so that any such issues may be expeditiously resolved.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.



Jennifer K. Stewart
Registration No.: 53,639

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P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844
Facsimile: (919) 854-2084